AMENDMENT TO THE SPECIFICATION

Please amend the specification as follows:

Please add the following abstract:

A vector field, including its local three-dimensional attribute, is substantially visualized on a two-dimensional field of view in an intuitionally visible way. The vector field is mapped onto a three-dimensional coordinate space to produce corresponding coordinate point sequences, the degree of elevation in a local area of a plane in which the coordinate point sequences are connected is determined, the degree of depression in the local area is determined, the degree of elevation/depression in the local area is determined by weight-combining the degree of elevation and the degree of depression, the coordinate space is mapped onto a two-dimensional plane and gray-scale display corresponding to the degree of elevation/depression is conducted on the area of the two-dimensional plane corresponding to the local area.